

REMARKS

This is in full and timely response to the above-identified Office Action. The above listing of the claims supersedes any previous listing. Favorable reexamination and reconsideration are respectfully requested in view of the preceding amendments and the following remarks.

Claim Amendments

In this response, claim 6 has been amended and claims 7 and 9 have been cancelled. The cancellation of claim 7 moots its rejection under 35 USC § 112. Claim 6 has been amended in a manner which both clarifies claim syntax and further distinguishes the claimed subject matter over the cited prior art. New claim 10 similar to canceled claim 5 has been filed.

Rejections under 35 USC § 101

In this response, claim 6 has been amended to make it clear that the claimed subject matter is directed to a structure for efficiently exerting a genetic algorithm (GA) processing for solving a problem using a plurality of processing devices (viz., computers, servers and CPU's), and not just a simple computer emulation.

Rejections under 35 USC § 102

The rejection of claims 6 and 9 under 35 USC § 102(b) as being anticipated by USP 6,542,468 Hatakeyama, is respectfully traversed.

Hatakeyama is directed to estimating a response time for each path used by the processing of a genetic algorithm based on an actual response time for access of an individual of each client.

First, Hatakeyama does not disclose the means of the present invention corresponding to "a plurality of processing devices wherein a first part of said plurality of processing devices is assigned to search using a local search method, and a second part of said plurality of processing devices is assigned to processing of the genetic algorithm;

and search processing control means configured for collecting interim results of searches from the processing devices assigned to the processing by the genetic algorithm and using search processing by a local search method."

The parameter adjusting device of the claimed invention is able to parallelize the search processing and make the search processing more efficient by assigning a part of the processing devices to the local search processing, collecting the interim results of the GA processing, and using the interim results for the local search processing, thereby being able to search with a high degree of accuracy within a short time compared to the method wherein only the GA processing is distributed or the method wherein the GA processing and the local search processing are simply parallelized.

Next, Hatakeyama discloses selecting a parent individual from other "schools" when a child individual is generated in the GA processing (see paragraphs [0091], [0135]). However, how the schools are controlled or to what the schools correspond is not clear. Further, an individual of another school is only referred to when the child individual is generated. Accordingly, Hatakeyama does not completely replace one part of the individual in each processing method as the migration processing of the claimed invention.

A parallel GA system of the present invention allows an individual population to become independent with respect to each CPU and evolve. Consequently, the GA process in each CPU lowers the diversity of a solution compared to the GA process of a single population, so that the fitting capability of parameters may go down. Consequently, the present invention adds the migration processing which exerts the process of replacing individuals among individual populations in the respective CPUs. By this migration processing, the present invention has a specific effect of being able to maintain the diversity of the solution in the parallel GA system using a plurality of CPUs, and exert the fitting

capability of the parameters which is the same as that during the single population processing.


The structure of the migration processing of the present invention is not disclosed in Hatakeyama, and therefore the claimed subject matter is neither anticipated by nor can be readily distilled from Hatakeyama.

Conclusion

The claims as amended above are deemed to be patentable over the cited art for at least the reasons advanced above.

Favorable reconsideration and allowance of this application are courteously solicited.

Respectfully submitted,  
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